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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/789,402

02/27/2004

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Intel-022PUS

5239

7590 03/03/2008
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EXAMINER

WEIDNER, TIMOTHY J

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

03/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,402

Applicant(s)

KHOSRAVI, HORMUZD M.

Examiner

Timothy Weidner

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 13, 14, 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-12, 15-22 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Claims 1, 11, and 21 are amended.
2. Claims 3, 4, 13, 14, 23, and 24 are cancelled.
3. Applicant's arguments, see page 13, filed November 30, 2007, with respect to objection of the specification and rejection under 35 USC 101 have been fully considered and are persuasive. These objections/rejections have been withdrawn.

Claim Objections

4. Claims 11-20 are objected to because of the following informalities: "executing instructions machine result in" is not clearly written. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 5-8, 11, 15-18, 21, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelissier et al. (US 6,496,503 B1, herein Pelissier) in view of Yip et al. (US 7,245,629 B1, herein "Yip").
7. Regarding claims 1, 11, and 21, Pelissier teaches a network element module comprising: a control element (figure 1, item 150; CE); a plurality of forwarding elements (figure 1, items 110, 112; FEs); and an interconnect in communication with said CE and said plurality of FEs (figure 1, item 122) and wherein communication across said interconnect between the CE and the FE is accomplished by executing machine instructions resulting in the following: executing a binding phase to provide a data

channel between the CE and a first one of the FEs (column 2, lines 57-67, column 3, lines 1-15; "to route management cells ... to initialize or configure ... **subsequent cells** can be routed"), the data channel to transport packets including, as in the instant invention alternative, packets to be forwarded from the CE to a second one of the FEs (column 4, lines 30-37), the binding phase further to provide a control channel between the CE and the first one of the FEs (column 2, lines 57-67, column 3, lines 1-15; "to route **management cells** ... using explicit routing to initialize or configure"), the control channel to transport control and configuration messages (column 5, lines 34-41); executing a capability discovery phase between the CE and the first one of the FEs (column 4, lines 23-30); and executing a configuration operation phase between the CE and the first one of the FEs (column 4, lines 23-30).

8. Further, Pelissier teaches said binding phase further comprises a bind request (column 9, lines 34-50; "query ... **in a management cell** ... initialize a device's MAC address") sent from the first one of the FEs to the CE (column 4, lines 30-37), and a bind response sent from the CE to the first one of the FEs after the first one of the FEs has received said bind request (column 9, lines 59-66).

9. However, Pelissier does not teach said control channel is separate from said data channel. Yip, which is in the same field of endeavor, teaches the control channel is separate from the data channel (figure 1, items 132, 134; column 2, lines 25-35) for the purpose of making a packet-forwarding device less susceptible to a single point of failure. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have the data and control channels of Pelissier separate to make a packet-forwarding device less susceptible to a single point of failure.

10. Regarding claims 5, 15, and 25, Pelissier teaches said capability discovery phase comprises, as in the instant invention alternative, a topology request sent from the CE to the first one of the FEs (column 9, lines 34-50; "query a device's forwarding database").

11. Regarding claims 6, 16, and 26, Pelissier teaches said capability discovery phase further comprises, as in the instant invention alternative, a topology response sent from the first one of the FEs to the CE after the first one of the FEs has received said topology request (column 9, lines 59-66).

12. Regarding claims 7, 17, and 27, Pelissier teaches said configuration operation phase comprises, as in the instant invention alternative, a query request sent from the CE to the first one of the FEs (column 9, lines 34-50; "query a device's address").

13. Regarding claims 8, 18, and 28, Pelissier teaches said configuration operation phase further comprises, as in the instant invention alternative, a query response sent from the first one of the FEs to the CE after the first one of the FEs has received said query request (column 9, lines 59-66).

14. Claims 2, 12, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelissier et al. (US 6,496,503 B1, herein Pelissier) in view of Yip et al. (US 7,245,629 B1, herein "Yip") as applied to claims 1, 11, and 21 respectively above, and further in view of Sugihara (US 6,785,272 B1).

15. Regarding claims 2, 12, and 22, Sugihara, which is in the same field of endeavor, teaches executing an unbinding phase between the CE and the first one of the FEs (figure 9, steps 1009, 1010; column 12, lines 1-15; "the master unit can assume that the corresponding slave unit is no longer connected") for the purpose of initiating a topology table update. It would have been obvious to one of ordinary skill in the art at the time the invention was made to, in addition to the method taught by Pelissier and Yip, execute an unbinding phase between the CE and the first one of the FEs to initiate a topology table update.

16. Claims 9, 10, 19, 20, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelissier et al. (US 6,496,503 B1, herein Pelissier) in view of Yip et al. (US 7,245,629 B1, herein "Yip") as applied to claims 1, 1, 11, 11, 21, and 21 respectively above, and further in view of Ben-Yehezkel et al. (US 2002/0165973 A1, herein "Ben-Yehezkel").

17. Regarding claims 9, 19, and 29, Ben-Yehezkel, which is in the same field of endeavor, teaches messages are provided having an eight-byte header (paragraph 0079) for the purpose of providing a maximum number of bytes of payload in a UDP datagram. It would have been obvious to one of ordinary skill in the art at the time the invention was made to, in addition to the method taught by Pelissier and Yip, provide the messages having an eight-byte header to provide a maximum number of bytes of payload in a UDP datagram.

18. Regarding claims 10, 20, and 30, Ben-Yehezkel teaches messages are provided having a variable length payload (paragraph 0088) for the purpose of adhering to the

characteristics of the channel or the maximum size packet that will be accepted at the packet's destination. It would have been obvious to one of ordinary skill in the art at the time the invention was made to, in addition to the method taught by Pelissier and Yip, provide the messages having a variable length payload to adhere to the characteristics of the channel or the maximum size packet that will be accepted at the packet's destination.

Response to Arguments

19. Applicant's arguments filed November 30, 2007 regarding the rejections of currently amended claims 1, 11, and 21 have been fully considered but they are not persuasive.

20. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

21. Applicant asserts that neither Pelissier nor Yip discloses transmitting a bind request and a bind response. Examiner points to the citations provided in the rejections, and more specifically to the management cells used to set up routes between a control element (CE) and a forwarding element (FE). Pelissier is capable of sending data and control packets after route initialization. This is done by using management cells to set up a route between CE and FE using explicit routing, i.e. routes are unknown, so management cells (control packets) are used to find a route.

Once a route is found, via the management cells, a control channel is essentially established because the management cells have found a route between the CE and FE (col. 2 line 57 through col. 3 line 8). Further, by way of this newly established channel, subsequent cells (data packets) are routed using another routing protocol (address routing), i.e. the explicit routing protocol is no longer used (col. 3 lines 2-6). Use of the address routing protocol is only possible because the explicit routing protocol has initialized each device along the route by assigning addresses for each device (col. 2 lines 50-55). Pelissier teaches the assignment of addresses (binding), via the management cells, using a Set() command (col. 9 lines 34-46), which is the same as transmitting a bind request to establish the data and control channels. The bind response clearly follows the bind request (col. 9 lines 59-66).

22. Regarding applicant's assertion that Yip does not teach the bind request and response, this argument is moot because Pelissier teaches these features. Yip is used to show how separate data and control channels are provided to solve the problem of a single point of failure (col. 2 lines 25-35). Further, in a manner similar to Pelissier, the teaching of Yip can be applied to a single location or a distributed routing architecture (col. 6 lines 12-18), and that separate protocols in which request/response establishment is common may be used for separate channels (col. 6 lines 51-58). An explicit teaching by Yip of a request/response to establish the data and control channels is not necessary because the rejection is based on a combination of references.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Weidner whose telephone number is (571) 270-1825. The examiner can normally be reached on Monday - Friday, 8:00 AM - 5:00 PM, EST.

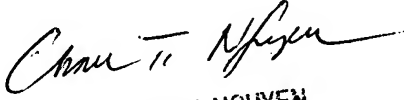
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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TJW


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